(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 24 June 2004 (24.06.2004)

PCT

(10) International Publication Number WO 2004/053054 A3

(51) International Patent Classification7: 33/567, C07K 16/46

G01N 33/53,

(21) International Application Number:

PCT/IL2003/001040

(22) International Filing Date: 9 December 2003 (09.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/431,728

9 December 2002 (09.12.2002) US

- (71) Applicant (for all designated States except US): NATS-PEARS LTD. [IL/IL]; 2a Katzir Street, Ramat Gan 52656 (IL).
- (72) Inventors; and
- Inventors/Applicants (for US only): MANDELBOIM, Ofer [IL/IL]; 58 Hayarden Street, 73142 Shoam (IL). PORGADOR, Angel [IL/IL]; 11 Tavlan Street, Lehavim 85338 (IL).
- (74) Agent: WEBB, Cynthia; Webb & Associates, P.O. Box 2189, Rehovot 76121 (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 28 October 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NK CELL RECEPTOR CONJUGATES FOR TREATING MALIGNANCIES

(57) Abstract: The present invention relates generally to compositions useful in therapies involving the selective destruction of tumor cells in vivo. In particular, this invention relates to a conjugate which comprises a target recognition segment and an active cytotoxic segment. The target recognition segment comprises a receptor specific to NK cells, wherein the receptor binds to a cellular ligand expressed on the surface of a tumor cell, and the active segment comprises an agent capable of exerting a cytotoxic effect on the tumor cell. The target recognition segment derived form the natural killer receptor NKp30 has been found to be particularly effective in vivo.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL03/01040

			101/1203/01040		
A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G01N 33/53, 33/567; C07K 16/46 US CL : 435/7.2; 530/391.1					
According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols) U.S.: 435/7.2; 530/391.1					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Medline, WEST					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category *	Citation of document, with indication, where a	ppropriate, of the r	elevant passages	Relevant to claim No.	
A,T	MANDELBOIM, O. et al. Molecules in focus, NKp46. The International Journal of 1-17, 19-26, 2			1-17, 19-26, 28, 29, 30, 32-33, 36, 37, 43,	
	documents are listed in the continuation of Box C.	"T" later doc	ent family annex.	rnational filing date or priority	
"A" document defining the general state of the art which is not considered to be of particular relevance		date and principle	date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E" earlier ap	earlier application or patent published on or after the international filing date		document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone		
"L" document establish specified)	which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" documer consider	ent of particular relevance; the claimed invention cannot be ered to involve an inventive step when the document is ned with one or more other such documents, such combination obvious to a person skilled in the art		
"O" document	referring to an oral disclosure, use, exhibition or other means				
priority d	published prior to the international filing date but later than the ate claimed	"&" document member of the same patent family			
Date of the actual completion of the international search		Date of mailing o	f the international search	h report	
	r 2004 (05.09.2004)	Muthonized age	7		
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450		Authorized officer Adama M. Harris, Ph. 19 A			
Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Telephone No. 5	71.272.1600		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL03/01040

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)				
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:				
2. Claim Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:				
3. Claim Nos.: 18, 27, 31, 34-35, 38-42 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).				
Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)				
This International Searching Authority found multiple inventions in this international application, as follows:				
 As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 				
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:				
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.				